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From Inspiration to Final Mix, the RS7000 Gives You Complete Creative Control and Flexibility Every Step of the Way.

cing the RS7000 Music Production Studio, a fully integrated synthesizer/sampling workstation tailored to the needs of modern ining the functions of a number of award-winning Yamaha products—the powerful sequencing capabilities of M1x sequencer, the realtime control capabilities of the SU700 desktop sampler, and the amazing Loop Remix and Slice functions
A5000/4000 rackmount samplers—the RS7000 gives you everything you need to create contemporary music, from soulful R&B to g-edge techno, with the uncompromising sound quality you've come to expect from Yamaha.

A Powerful Sequencer, Synthesizer, and Sampler in O

Comprehensive Sequencing

- Intuitive Pattern, Pattern Chain, and Song recording modes make it easy to sequence and arrange songs.
- Nearly **6,000 preset phrases** for you to use as a basis for original songs.
- 1,024 user patterns (64 styles each with 16 sections).
- Powerful 16-track sequencer with approx. 259,000 notes and 480-ppg resolution. Track program change events make it possible to use an unlimited number of instruments in a song.

Full-blown Synthesis

- Over 1,054 high-quality AWM2 voices and 63 drum kits.
- 16 multitimbral parts with 62 notes of polyphony.
- 4 simultaneous effects blocks: Reverb (12 types), Delay/Chorus (25 types), Variation (100 types), and Master (8 types).
- Individual Track EQ plus Master EQ.
- 6 LFO wave types including a Programmable LFO wave—all syncable to
- 6 filter types, including 12dB/oct, 18dB/oct, and 24dB/oct low-pass, high-pass, band-pass, and band-eliminate.

Advanced Sampling

- Internal sample memory expandable up to 64 MB for approx. 6 min. 20 sec of stereo sampling time.
- Powerful sample edit functions, including Slice and Loop Remix.

- Integrated Sampling Sequencer (ISS) lets you sample audio directly into your
- 18 assignable control knobs and 4 Master Effect knobs for extensive realtime control.

The Master Effect section lets you apply distortion, delays, sweeping filters, and isolation effects to your songs and patterns as they play back. There's even a Multi-band Compressor (an indispensable effect for mastering) and a Slice function that lets you alter the groove on the fly.

The RS7000's large backlit LCD panel displays a wealth of information in a simple, easy-to-understand layout. This, together with 4 conveniently located knobs and function buttons, makes it easy to edit the parameters of the voices, samples, and

Press this button to turn any chord you play into a simple arpeggiated phrase. Arpeggio data can be recorded into your sequence and even used to control external MIDI synthesizers.

Up to 5 complete Scene and Mute setups (snapshots of the current parameter settings) can be stored and recalled at the touch of a button. Recall operations can be recorded into pattern chains and songs. Song arrangement has never been easier!

These keys let you select and mute tracks and switch sections. When the Keyboard button is activated, however, they become a convenient 2-octave polyphonic MIDI keyboard that you can use to record chords and melody lines into your sequencer tracks.

Based on Yamaha's acclaimed Loop

MIDI data (as opposed to audio data

Remix function, Real Time Loop

Remix divides and rearranges the

in the case of Loop Remix) of a selected phrase to generate totally

new and unique remixed phrases.

These assignable knobs allow you to control various effects and parameters for a selected track in you make into the sequencer for automated transformation of your tracks during playback.

realtime. You can record any changes

This section allows you to adjust the Delay/Chorus, Reverb and Variation effect level and volume for each track.

The EG (Envelope Generator) section lets you adjust the attack, decay, sustain, and release time of a voice's pitch, volume, and filter.

Yamaha synthesizers are known for their richsounding filters, and the RS7000 is no exception It boasts 6 filter types, including high-pass, bandpass, band-elimination, and 12dB/oct, 18dB/oct, and 24dB/oct low-pass filters.

LFO waves can be used to modulate the pitch. volume, or filter of a voice to produce effects such as vibrato, tremolo, or wah. The RS7000 provides 6 types of LFO waveforms, including a programmable LFO waveform that can be set by

The Pitch knobs allow you to control the pitch and portamento time (the sliding speed from one pitch to another) of a voice in realtime

The Grid Groove function allows you to change the rhythmic feel of your patterns and songs by varying note timing, gate time, and velocity on an easy-to-use grid. Tweaking can be performed in realtime, allowing you to hear the changes in the groove as your pattern plays back.

These buttons give you quick and easy access to the RS7000's main and sub modes.

By assigning track instruments such as drums and samples to these touch-sensitive pads, the RS7000 becomes a "playable instrument," allowing you to record tracks with a more human feel. A great tool for recording percussion!

The Flexible Control of MIDL, the Creative Freedom of Audio — the R Integrated Sampling Sequencer Gives You the Best of Both Worlds.



The RS7000 bridges the gap between MIDI sequencing and audio recording with its Integrated Sampling Sequencer (ISS). In addition to Pitch and Kit sampling modes, which function just like sampling on a conventional sampler, the RS7000 offers two additional sampling modes never before available in a hardware sampler. These include...

This sampling mode lets you record audio directly into your sequence at any point—just like recording on a multitrack hard disk recording system. While listening to your sequenced tracks play back, simply record your audio part—a vocal phrase, a guitar lick, an acoustic drum...anything you'd like—the RS7000 will automatically place a MIDI note directly into the sequence so that the sampled phrase plays back at the appropriate time. Imagine—no more having to manually map your samples to the keyboard and enter them into your sequence at a later time. This function eliminates all the tedious in-between steps, allowing you to concentrate on making music.

As with KIT + NOTE, this mode lets you record audio right into your sequence in one easy step. Yet, instead of simply triggering the sample with a single MIDI note-on message, the RS7000 analyzes the entire audio signal and slices it according to peaks and beat divisions. It then assigns a MIDI note to each of the slices and generates an extremely accurate MIDI sequence to retrigger them in the proper order. During the Slice process, the RS7000 re-synthesizes the tail end of each slice to ensure that the sampled phrase plays back smoothly and naturally, even if you slow down or speed up the tempo of the sequence. This function is especially effective for drum loops and other rhythmic phrases. When applied to a break-beat phrase, for example, every kick, snare, and hi-hat, etc. will exist as an individual note in your sequence. This allows you to apply MIDI editing functions such as groove, velocity, and gate changes to your audio tracks, giving you a level of control not possible with traditional sample-based sequencers.

"Play" Each Slice on the Keyboard to Create New Remixed Phrases

In addition to recording your audio phrase directly into a sequencer track, SLICE + SEQ mode maps each of the audio slices to the RS7000's keyboard, allowing you to play each division as an individual sample. By playing different combinations of keys manually into a sequencer track, you can create an unlimited number of breaks, fills, and pattern variations.

A Closer Look at the Integrated Sample Sampling with SLICE + SEQ

SLICE + SEQ divides the sampled audio phrase into sections. Each section is automatically assigned a MIDI note and mapped to the kevboard.



At the same time, the MIDI notes used to trigger the audio slices are recorded into the selected sequencer track.

Because each of the slices is controlled by a MIDI note, you can apply MIDI editing functions (such as velocity, gate, and clock changes) directly to the audio phrase.



have MIDI notes assigned to each division, they too can be used with the Grid Groove function. This ability to alter the groove of sampled phrases makes the RS7000 stand out as a powerful groovemaking tool for modern music production. Here we will show you how to slice a sample loop and tweak the feel using Grid Groove.

Because samples that have been processed with

the Slice function (or recorded using SLICE + SEQ)

1. Press the Sample Edit button three times to access the Sample Job List page. Then select Slice from the Job List.





2. Use the leftmost knob below the LCD screen to choose the sample you want to slice. Then press OK (F4).

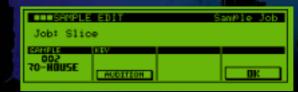
The RS7000's Grid Groove function gives you precision control over the feel of your MIDI tracks by allowing you to alter the pitch;

Gate Offset to give it a choppy feel, or Velocity Offset to accent certain beats. You can obtain particularly interesting results by using

Note Offset on a drum loop, which will replace the selected sections with different drum sounds. Best of all, you can tweak these value

gate time, and velocity of groups of MIDI notes divided into sixteenth-note segments. Use Clock Shift to give your track a swing

while the sequencer is running and hear the results in realtime. You can even record the changes into the sequencer track.



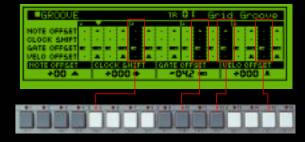
3. Once the Slice command has completed, the segments will be assigned to the RS7000's keyboard. Press Create (F3) to save your newly

A visual representation of the sample will appear, showing the currently selected slice values. Use the knobs below the LCD screen to set the sample and the number of divisions you want. Then press DO! (F4).



Select the track with the sliced phrase and start the sequencer. Then press the Groove button in the Sub Mode section to access the Grid Groove function.

4. A grid will appear in the display showing a measure divided into 16 sections. Use the keys at the bottom of the RS7000 to select the section(s) whose value you want to change. Then use the knobs below the LCD screen to change the appropriate parameters. Try changing the parameter values of various sections until you've shaped the groove to



Audio Samples, Music Styles and Software Included!

Everything you need to get started.



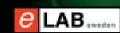
Right out of the box, the RS7000 is ready for you to start making music—with a CD-ROM and SmartMedia™ card packed with music style data that you can freely use in your original songs. This CD-ROM also contains hundreds of audio samples, from drum loops to sound effects, as well as editing software that lets you edit the samples right on your Mac or PC.

SmartMedia[™] care

An 8MB SmartMedia[™] card is included with the RS7000, which contains nearly 60 music styles ranging from techno, house, funk, and ambient to hip hop and R&B. Two of the styles contain sample data in addition to MIDI data.

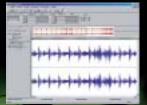
D-ROM

The bundled CD-ROM is packed with cutting-edge audio samples, including dance loops, drum kits, acoustic and electronic instrument riffs, and more! Many of the tracks were produced by e-LAB, Sweden's world-renown dance loop maker, and cover the entire dance music spectrum, from hard driving break beats to chilled out ambient vibes. The CD-ROM also contains style data (MIDI + Sample) of various dance genres, from R&B to techno.



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	276 30 BORRBY, SWEDEN
Phone:	Int +46-411-52 12 02
Fax:	Int +46-411-52 10 20
Home Page:	<www.e-lab.se></www.e-lab.se>

TWE Wave Editor



Yamaha's TWE wave editing software, included on the CD-ROM, lets you edit any audio samples recorded with the RS7000 with precision accuracy on your computer.

Using a SmartMedia[™] card or other removable storage device such as a Zip[™] drive, simply import the samples you want to edit and use TWE's comprehensive editing functions to alter and enhance them to your liking. Then bring the new audio back into the RS7000 and mix it in with your MIDI tracks.

Style List

SmartMedia[™] card

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Style#	Style Name		BPM	Data Type	Style#	Style Name	BPM	Data Type	Style#	Style Name	BPM	Data Type
	BRK TRANCE	audio	140.0	MIDI+Sample	20	D&B CYBER	176.0	MIDI	39	LATIN HOUSE	138.0	MIDI
2	BREAKTEK		120.0	MIDI	21	BROKEN BEATS	125.0	MIDI	40	INTELL HOP audio	98.0	MIDI+Sample
3	INDUSTRIAL F	ROCK	115.0	MIDI	22	DOWNBEAT	96.0	MIDI	41	FLIP HOP 1	128.0	MIDI
4	BIG BEAT 1		126.0	MIDI	23	AMBIENT PSYCHE 1	93.0	MIDI	42	FLIP HOP 2	130.0	MIDI
	BIG BEAT 2		128.0	MIDI	24	CHILL OUT	80.0	MIDI	43	FUNKY HIP HOP	96.0	MIDI
6	BIG BEAT 3		142.0	MIDI	25	TRIBAL	135.0	MIDI	44	GANGSTA	94.0	MIDI
	TRANCE 1		137.0	MIDI	26	DUB REGGAE	145.0	MIDI		G-OLDSKOOL	98.0	MIDI
8	TRANCE 2		144.0	MIDI	27	ILLBIENT	98.0	MIDI	46	OLD SKOOL	102.0	MIDI
	TRANCE 3		145.0	MIDI	28	NY AMBIENT	100.0	MIDI	47	RAGGA HIP 1	74.0	MIDI
10	MINIMAL 1		142.0	MIDI	29	GARAGE HOUSE	128.0	MIDI		RAGGA HIP 2	87.0	MIDI
11	ACID TECHNO)	132.0	MIDI	30	2STEP 1	130.0	MIDI		R&B SMOOTH	64.0	MIDI
12	BERLIN TECH	INO 1	135.0	MIDI	31	2STEP 2	135.0	MIDI	50	R&B 90	94.0	MIDI
13	BERLIN TECH	INO 2	135.0	MIDI	32	PROGRESS HOUSE	132.0	MIDI		SLIP HOP	110.0	MIDI
14	ELECTRO		130.0	MIDI	33	EURO HOUSE	37.0	MIDI	52	TRIP HOP	87.0	MIDI
15	TECHNOLECT	ΓRO	134.0	MIDI	34	TRANCE HOUSE 1	135.0	MIDI	53	HIP HOP JAZZ	72.0	MIDI
16	UK ELECTRO		132.0	MIDI	35	TRANCE HOUSE 2	140.0	MIDI	54	CLUB JAZZ	94.0	MIDI
17	ELECTRO HO	P	140.0	MIDI	36	DISCO 70	123.0	MIDI	55	JAZZ FUNK	108.0	MIDI
18	D&B TEK		185.0	MIDI	37	DISCO GARAGE	130.0	MIDI	56	FUNK 70	104.0	MIDI
19	D&B ARTCOR	Ε	170.0	MIDI	38	FUNKY HOUSE	137.0	MIDI				

)-ROM

Style#	Style Name	BPM	Data Type
1	BIG BEAT 4 audio	112.0	MIDI+Sample
2	BRK TRANCE audio	140.0	MIDI+Sample
3	MINIMAL2 audio	139.0	MIDI+Sample
	EURO BEAT audio	137.0	MIDI+Sample
	DREAMDANCE audio	136.0	MIDI+Sample
6	AMB HOUSE audio	138.0	MIDI+Sample
	IBIZA audio	135.0	MIDI+Sample
	AMB PSYCH2 audio	96.0	MIDI+Sample
9	FLIP HOP 3 audio	134.0	MIDI+Sample
10	MAD HOP audio	102.0	MIDI+Sample
11	INTELL HOP audio	98.0	MIDI+Sample
12	FUNK R&B audio	98.0	MIDI+Sample



Inspiration at the Touch of a Button! The Loop Remix Function Lets You Create Endless Variations of Your Sample and MIDI Phrases.

It Slices, It Dices... It Makes Tasty Loops and Grooves.

Loop Remix, the revolutionary sample editing function that originated in Yamaha's professional "A" Series samplers, has been fully integrated into the RS7000 to give you a music production workstation with unprecedented remix capabilities. This function cuts up a sampled audio phrase into a number of sections, or "slices," and randomly rearranges them to create fresh new breaks and rhythms. Depending on the Loop Remix type used, some slices are also processed with reverse effects for even greater remix possibilities. At the touch of a button, you'll be able to instantly create radical variations of your original loop, from funky break-beat fill-ins and hip-hop patterns to totally bizarre electronic grooves.

Using Loop Remi

Select the sample you want to remix in the Voice Select menu (1- or 2-measure drum loops will give you the best results). Then press the Sample Edit button to open the Overview Trim menu. Set the start and end points of your sample if necessary.





2. Press the Sample Edit button again. Set the Play mode of your sample to Loop if it is not already

3. Press the Sample Edit button a third time. Choose Loop Remix from the Job List and press the Select (F4) button.

screen to select the Remix Type ar Variation. Each press of the DO!

(F4) button creates a new remixed variation of your original sample. Press the Audition (F2) button to preview the remixed loop.

If you want to save it, just press the





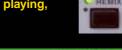
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it, just press the							

Real Time Loop Remix...or "It's Not Just for Audio Anymore."

Unlike the original Loop Remix function, which divides and rearranges audio data, Real Time Loop Remix rearranges the *MIDI* data of a given track to create new pattern variations. Now you can remix your sequenced drums and synthesizer tracks, too! And since this function can be performed in realtime, you can try out different remix variations of a track as your sequence plays back. This function can also be applied to any audio phrases that have been processed with the Slice function or recorded using SLICE + SEQ.

low it works

Select the track that you want to remix. While the sequence is playing press the Real Time Loop Remix button.



Use the knobs below the LCD screen to set the Remix Type and Variation. Then press the Remix (F1) button to preview the remixed track. Press the Create (F4) button to apply the remix to your track, or press the Remix button again to hear another remix variation.



Take Control of Your MIDI Tracks with Sequence Play FX

Sequence Play FX gives you realtime control over sequenced MIDI parameters such as velocity, gate time, and clock—parameters that, until now were accessible only through MIDI event editing menus. At the twist of a control knob, you can apply these effects to any of your recorded MIDI tracks as well as to any audio tracks that have been recorded or processed with the Slice function. Parameter changes can be recorded into the sequencer for fully automated playback. Below are some examples of the MIDI effects you can achieve using these knobs.

BEAT STRETCH CLOCK SHIFT

Stretch the Bea

Beat Stretch shortens or lengthens the phrase according to a preset percentage ranging from 25% to 400%. Use this function to change a quarter-note hi-hat into a rapid sixteenth-note pattern. Or try applying it to a bass phrase to generate patterns with a totally different feel.

From Staccato to Sustain and back

The Gate Time setting alters the sustain times of the notes according to a specified percentage. Use this function to transform a long sustaining bass line into a sharp spiked bass, for example.

Shift the Clock

This function shifts the timing of the notes in a phrase forward or backward, allowing you to tweak subtle aspects of a pattern's groove. For example, you can slightly delay the timing of a snare drum track to give your pattern a laidback feel, or experiment with higher values to come up new and interesting results.

Pump up the Volume

...or turn it down to a whisper. The Velocity Offset function lets you independently adjust the volume of each of your sequenced tracks. This function uses MIDI note velocity to control the volume of the track instrument and thus is independent from the Track Volume in the Effects Send/Volume section.

Add Some Swir

The Swing function delays the timing of the even-numbered eighth notes in a phrase. Set positive values to add a forward driving feel to your phrase, and negative values to achieve a laidback feel.

Create Harmony The Harmonize function

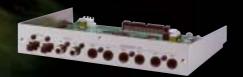
The Harmonize function lets you assign 2 parallel harmony lines to any of your MIDI tracks. There's also a Unison setting that duplicates the MIDI notes of a track (up to 8 times) to thicken up the sound, and an Octaver that doubles the MIDI notes of a phrase up to 10 octaves above or below the original notes.

Note: The Sequence Play FX knobs can be assigned to control virtually any function or parameter. By default, however, they are set to control specific parameters.

Expansion and Connection

The RS7000 comes equipped with 4MB of memory and can be easily expanded with pairs of standard PC SIMMs. Fully expanded, the RS7000 allows up to approx. 6 min. 20 sec. of stereo sampling time at a frequency of 44.1 kHz.

The optional AIEB2 I/O Expansion Board provides optical and coaxial terminals for direct digital input and output. Using these connectors, digital signal input can be recorded. This expansion board also gives you 6 assignable analog outputs in addition to the standard stereo outputs.



External SCSI devices, such as a high-capacity hard drive or a Zip™ drive, can be connected to the RS7000's SCSI for quick and easy storage and

retrieval of audio and sequencer data. A CD-ROM drive can also be connected for direct loading of sample data from sampling CD-ROMs.



Conveniently save all your projects and samples onto high-capacity SmartMedia™ flash memory cards. This storage medium also makes it easy to transfer samples to and from your computer.



The RS7000 provides two discrete MIDI OUT ports allowing you to control up to 32 MIDI OUT channels. The MIDI setup menu lets you configure the MIDI output, channel assignment and filter settings.



Shown with optional AIEB2 I/O Expansion Board.



Specifications

Sequencer Section Maximum Note Capacity	Approx. 259,000 not	es			
Note Resolution	480 ppq	2			
Maximum Polyphony	124 notes				
BPM (Tempo)	1.0 - 300.0	Sec. 10.			
Record Modes	Real time punch (So Step (Pattern and So	ng mode only)	ttern and Song modes only)		
Tracks	Pattern Mode Pattern Chain Mode Song Mode	16 phrase tracks Pattern track BPM track Scene/Mute track 16 sequence tracks BPM track Scene/Mute track			
	Patterns	Patterns Measures	1,024 (64 styles X 16 sections) 256 maximum		
	Phrases	Preset phrases User phrases	5,980 256 per style		
	Pattern Chains	20 chains			
	Songs	20 songs			
	Edit	Phrase edit, Pattern	Chain edit, Song edit		
	Jobs	Pattern jobs Pattern Chain jobs Song jobs	37 9 30		
	Grid Groove	0,	Shift, Gate Time Offset, Velocity Offset		
	Play Effects	Harmonize (Unison, Note (Note Offset, C	Octaver, Harmonize 1 & 2) Sate Time, Velocity Offset) h, Clock Shift, Swing)		
	MIDI Delay	MIDI Delay edit, Fee	edback edit		
	Arpeggio	Type (Up, Down, Alt	ternate 1 & 2, Random), Sort, Hold, Octave Range		
	Real Time Loop Ren Sequence Format	nix RS7000 original sec SMF format 0, 1 (Fo RM1x format (PATT,	ormat 1 load only)		
Tone generator block Type	AWM2 tone generate	or	Taken .		
Maximum Polyphony	62 notes				
Multi-timbral Capability	16 timbres (with Dynamic Voice Allocation)				
Preset Voices	Normal voices 1,054 (not including GM voices) Drum voices 63 kits (not including GM kits)				
Effects	4 systems Reverb Delay Chorus Variation	12 types 25 types 100 types	Alex AT		
	Master	8 types			
Equalizer	Master equalizer Track equalizer	4 band parameteric 5 types	equalizer		

Tone Generator Section							
Sample Voice Type:	Pitched Voice, Sample Kit Voice						
Maximum Samples	256						
Sampling Source	Analog inputs L/R, Stereo outputs L/R, Digital I/O (When optional AIEB2 I/O Expansion Board installed), Optical I/O (When optional AIEB2 I/O Expansion Board installed)						
A/D Conversion	20-bit, 64 X oversampling						
D/A Conversion	24-bit, 128 X oversampling						
Sampling Modes	Slice + Sequence, Kit, Kit + Note, Pitch						
Sample Data Bits	16						
Sampling Frequence	s 44.1 kHz (mono/stereo), 22.05 kHz, 11.025 kHz, 5.5125 kHz (LO-FI mode, mono/stereo) • Sampling frequencies of 48kHz, 44.1kHz, and 32kHz can be input digitally when the AIEB2 is installed.						
Internal Sample Me	ory Standard 4 megabytes (onboard) Maximum 64 megabytes (32 megabyte SIMMs X 2) Note: 4 onboard megabytes unavailable after maximum expansion.						
Sampling Time	Max. Sample Length 32 megabytes mono 64 megabytes stereo Max. Sample Time (mono or stereo) Approx. 6 min. 20 sec. (44.1 kHz)						
Sample Format	Original format AIFF (load only), WAV (save and load) A3000/4000/5000, SU700 (load only)						
Sampling Jobs	13						
Display (LCD)	64 X 240 dot graphic LCD with backlighting and contrast control						
Connectors	PHONES (Standard stereo phone jack) OUTPUT (Standard phone jack X 2) (L/MONO, R) INPUT (Standard phone jack X 2) (L, R) FOOT SWITCH MIDI IN, MIDI OUT (X 2, A & B) CARD SLOT (3.3 V SmartMedia™ card) SCSI (50-pin half-pitch) AC INLET (AC power)						
Dimensions (W X D X F	440 mm X 363 mm X 134 mm						
Weight	7 kg						
Supplied Accessories	Power cord CD-ROM (X 1) SmartMedia™ card (8 MB X 1) Owner's Manuals						
Options	I/O Expansion Board: AIEB2 Expansion Memory (use a pair of identical SIMMS conforming to the specifications below) Type 72-pin SIMM (Fast page or EDO, JEDEC Access Time: 70 ns or faste Parity Parity or non-parity Capacity 4/8/16/32 megabytes						

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